BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Pre-Measurements Taken On:- 10/02/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
1	KSRRB M300:- Excavation for road, drains and similar works KSRRB 300-1.Earth work excavation by manual means in ordinary soil involving an average horizontal throw up to 2m and an average lift up to 0.5m.excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clouds complete as per specifications.MORTH /chapter 3(p.no-143,i,no-19,1)							
	Prakruthi Layout RCC Drain:-2nd cross R/Side	cum	1	30.00	1.30	0.90	35.10	
			1	30.00	1.30	0.90	35.10	
			1	30.00	1.30	0.90	35.10	
			1	30.00	1.30	0.90	35.10	
			1	13.70	1.30	0.90	16.03	
	1st Main/5th cross R/Side		1	30.00	1.20	0.90	32.40	
			1	30.00	1.20	0.90	32.40	
			1	2.50	1.20	0.90	2.70	
	For RCC culvert:-2nd Cross		1	5.70	1.65	1.00	9.41	
	1st Main/5th cross		1	6.20	1.65	1.00	10.23	
	Kenchenahalli Railway Track near		1	9.50	1.65	1.00	15.68	
			1	6.40	1.65	1.00	10.56	C&FC
					Total Quantity		269.80	

M N. Ramaiah.
Contractor

10/02/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Pre-Measurements Taken On:- 12/10/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
2	KSRB M2100-10:Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220 kgs, with crushed 40mm and down size graded granite metal coarse aggregates @ 0.89 cum and fine aggregates @ 0.46 cum in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days including cost of all materials,labour, HOM curing,form works,scaffolding and centering complete as per specifications (Page no 222, item no 27.18)							
	Prakruthi Layout RCC Drain:-2nd cross R/Side	cum	1	30.00	1.10	0.15	4.95	
			1	30.00	1.10	0.15	4.95	
			1	30.00	1.10	0.15	4.95	
			1	30.00	1.10	0.15	4.95	
			1	13.70	1.10	0.15	2.26	
	1st Main/5th cross R/Side		1	30.00	1.00	0.15	4.50	
			1	30.00	1.00	0.15	4.50	
			1	2.50	1.00	0.15	0.38	
	For RCC culvert:-2nd Cross		1	5.70	1.40	0.15	1.20	
	1st Main/5th cross		1	6.20	1.40	0.15	1.30	
	Kenchenahalli Railway Track near		1	9.50	1.40	0.15	2.00	
			1	6.40	1.40	0.15	1.34	S.B.F.C.
					Total Quantity		37.27	

M N Ramaiah.
Contractor

12/10/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT
Yelahanka Divisio

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Measurements Taken On:- 25/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
3	Providing and laying plain/ Reinforced cement concrete for side drains using M20 nominal mix concrete with opc at 300kgs with 20mm and down size granite metal coarse aggregates @0.69cum and fine aggregates @0.43 cum machine mixed,well compacted for walls and bottom including centering ,shuttering,cost of materials,HOM of machinery,curing etc,complete excluding cost ofsteel as per MORTH specification No.1500,1700,2000.including cost of materials,labour,HOM complete as per specifications. (Page No 271. Item No. 37.59.2 of PW,P&IWTD SR 2018-19)							
	RCC Drain Raft concrete							
	Prakruthi Layout:-2nd Cross R/Side	cum	1	30.00	0.90	0.15	4.05	
			1	30.00	0.90	0.15	4.05	
			1	30.00	0.90	0.15	4.05	
			1	30.00	0.90	0.15	4.05	
			1	13.70	0.90	0.15	1.85	
	1st Main/5th cross R/Side		1	30.00	0.75	0.15	3.38	
			1	30.00	0.75	0.15	3.38	
			1	2.50	0.75	0.15	0.28	
	Side Walls:-		2	30.00	0.15	0.60	5.40	
			2	30.00	0.15	0.60	5.40	
			2	30.00	0.15	0.60	5.40	
			2	30.00	0.15	0.60	5.40	
			2	13.70	0.15	0.60	2.47	
	:-		2	30.00	0.15	0.60	5.40	
			2	30.00	0.15	0.60	5.40	
			2	2.50	0.15	0.60	0.45	
	For RCC culvert Raft Concrete:-2nd cross		1	5.70	1.20	0.20	1.37	
	1st Main/5th cross		1	6.20	1.20	0.20	1.49	
	Kenchenahalli Railway Track near		1	9.50	1.20	0.20	2.28	
			1	6.40	1.20	0.20	1.54	
	Side Walls:-		2	5.70	0.20	0.60	1.37	
			2	6.20	0.20	0.60	1.49	
			2	9.50	0.20	0.60	2.28	
			2	6.40	0.20	0.60	1.54	C&FC
					Total Quantity		73.74	

M N. Ramaiah.

Contractor

Assistant Engineer
Ward No-02

25/11/2020

Assistant Executive Engineer
Yelahanka Sub Division

BRUHATH BENGA
Yelahanka Divisio
BBMP/2020-21/OW/

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Measurements Taken On:- 27/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
6	Providing and fixing RCC Pre cast covering Slab 250mm thick made out of cc 1:2:4 and jelly 20mm down size with steel reinforcement including form work,laid and lift charges,curing and concrete finished on both sides etc,complete as per engineer in charge (Data Rate).							
	For RCC culvert :-2nd cross	sqm	9	1.20	0.60		6.48	
	1st Main/5th cross		10	1.20	0.60		7.20	
	Kenchenahalli Railway Track near		12	1.50	0.60		10.80	
			10	1.50	0.60		9.00	CBFC
					Total Quantity		33.48	
					Limited To Schedule B Qty		33.00	

M N Ramaiah.
Contractor

27/11/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHATH BENGA
Yelahanka Divisio
BBMP/2020-21/OW/

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Pre-Measurements Taken On:- 28/10/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
7	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1.00 km and complete as per specifications.MORTH Specification No.301(p no-143,i,no-19,14)							
	Prakruthi Layout 2nd cross	cum	1	2.50	(4.60+6.20)/2	0.35	4.73	
			1	30.00	(5.70+4.80)/2	0.35	55.13	
			1	30.00	(4.80+4.90)/2	0.35	50.93	
			1	30.00	(4.90+5.00)/2	0.35	51.98	
			1	30.00	(5.00+4.90)/2	0.35	51.98	
			1	11.20	(4.90+5.20)/2	0.35	19.80	
					Total Quantity		234.52	CUFC
					Limited To Schedule B Qty		234.50	

M N. Ramaiah,
Contractor

28/10/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Pre-Measurements Taken On:- 04/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
8	Construction of granular sub-base Grading V as Sub base and drainage layer by providing coarse graded crushed stone aggregates of granite/trap/basalt material,mixing in mechanical mix plant at omc carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98% proctor density,complete as per specifications clause 401 of MORTH V Revision.(page no.153 item no.20.5)							
	Prakruthi Layout 2nd cross	cum	1	2.50	(4.60+6.20)/2	0.15	2.03	
			1	30.00	(5.70+4.80)/2	0.15	23.63	
			1	30.00	(4.80+4.90)/2	0.15	21.83	
			1	30.00	(4.90+5.00)/2	0.15	22.28	
			1	30.00	(5.00+4.90)/2	0.15	22.28	
			1	11.20	(4.90+5.20)/2	0.15	8.48	
					Total Quantity		100.51	C&FC
					Limited To Schedule B Qty		100.50	

M.N. Ramaiah.
Contractor

7/11/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0 -Final Bill

Pre-Measurements Taken On:- 10/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
9	KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting withvibratory roller to achieve the desired density complete as per specifications.MORTH Specification No. 406(p.no.155.item no.20.18)							
	Prakruthi Layout 2nd cross	cum	1	2.50	(4.60+6.20)/2	0.25	3.38	
			1	30.00	(5.70+4.80)/2	0.25	39.38	
			1	30.00	(4.80+4.90)/2	0.25	36.38	
			1	30.00	(4.90+5.00)/2	0.25	37.13	
			1	30.00	(5.00+4.90)/2	0.25	37.13	
			1	11.20	(4.90+5.20)/2	0.25	14.14	
					Total Quantity		167.52	C&FC
					Limited To Schedule B Qty		167.50	

C&FC 10/11

M N Ramaiah,
Contractor

10/11/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Pre-Measurements Taken On:- 18/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
10	KSRRB M500-6. Providing and applying primer coat with bitumen emulsion on prepared surface of granular base including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications clause 502 of MORTH V revision(P.No-158,Item No 21.6)							
	Prakruthi Layout 2nd cross	Sqm	1	2.50	(4.60+6.20)/2		13.50	
			1	30.00	(5.70+4.80)/2		157.50	
			1	30.00	(4.80+4.90)/2		145.50	
			1	30.00	(4.90+5.00)/2		148.50	
			1	30.00	(5.00+4.90)/2		148.50	
			1	11.20	(4.90+5.20)/2		56.56	
					Total Quantity		670.06	
					Limited To Schedule B Qty		670.00	

CRFC

18/11

CRFC

Mr Ramaiah.

Contractor

18/11/2020

Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Pre-Measurements Taken On:- 18/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
11	KSRRB M500- 17. Providing laying dense graded bitumrn macadam using crushed aggregates of sprcified grading premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying to the required grade ,level and alignment, rolling with wheeled,vibratory and tandeem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.MORTH Specification No,507.Using 100/120 TPH capacity HMP with sensor paver Gr-II(50MM TO 75MM)WITH 4.5% VG-30 Bitumen(page No.160.I No-21.17.6)							
	Prakruthi Layout 2nd cross	cum	1	2.50	(4.60+6.20)/2	0.05	0.68	
			1	30.00	(5.70+4.80)/2	0.05	7.88	
			1	30.00	(4.80+4.90)/2	0.05	7.28	
			1	30.00	(4.90+5.00)/2	0.05	7.43	
			1	30.00	(5.00+4.90)/2	0.05	7.43	
			1	11.20	(4.90+5.20)/2	0.05	2.83	C&FC
					Total Quantity		33.50	

C&FC 18/11

M N Ramaiah
Contractor

18/11/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Pre-Measurements Taken On:- 19/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
12	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen (VG10)on the prepared black topped surfaces at 0.25 kg per sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Chapter 5(page no.158 item no.21.7)							
	Prakruthi Layout 2nd cross	Sqm	1	2.50	(4.60+6.20)/2		13.75	
			1	30.00	(5.70+4.80)/2		157.50	
			1	30.00	(4.80+4.90)/2		145.50	
			1	30.00	(4.90+5.00)/2		148.50	
			1	30.00	(5.00+4.90)/2		148.50	
			1	11.20	(4.90+5.20)/2		56.56	C&FC
					Total Quantity		670.31	
					Limited To Schedule B Qty		670.00	

C&FC 19/11

M N Ramaiah
Contractor

19/11/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Measurements Taken On:- 19/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
13	Providing and laying Bituminous concrete 40mm thick with hot mix plant, using crushed aggregates of sprcified grading premixed with bituminous binder and filler transporting the hot mix to work site laying with a paver finisher to the required grade ,level and alignment, rolling with wheeled,vibratory and tandeem rollers to achieve the desired compaction in all respects complete as per specifications.clause 507 of MORTH V revision as per IRC SP-53-2015,Do-using 40-60 TPH capacity HMP WITH mechanical paver grading II(30-45MM)WITH 5.4% of modified bituminous binder consisting of 4.97% of VG-30 Bitumen(60/70 grade)and 0.43% of Plastomeric thermoplastics(Waste Plastic)(Page No.171.Item No.21.78.12)							
	Prakruthi Layout 2nd cross	cum	1	2.50	(4.60+6.20)/2	0.03	0.41	
			1	30.00	(5.70+4.80)/2	0.03	4.73	
			1	30.00	(4.80+4.90)/2	0.03	4.37	
			1	30.00	(4.90+5.00)/2	0.03	4.46	
			1	30.00	(5.00+4.90)/2	0.03	4.46	
			1	11.20	(4.90+5.20)/2	0.03	1.70	
					Total Quantity		20.10	

M.N. Ramaiah
Contractor

Assistant Engineer
Ward No-02
18/11/2020

Assistant Executive Engineer
Yelahanka Sub Division

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work:-Improvements and Asphalting to roads at Prakruthi Layout in chowdeshwari ward no -02 of yelahanka sub division

Agency:-Sri M N Ramaiah

MEASUREMENT SHEET Bill N0:-Final Bill

Measurements Taken On:- 27/11/2020

S.NO	Description of item's	Unit	No	Measurements L	B	D	Qty	Remarks
14	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.MORTH Specification No. 803(page no-182,i no-24.15)							
	Prakruthi Layout 2nd cross	sqm	2	2.50	0.10		0.50	
			2	30.00	0.10		6.00	
			2	30.00	0.10		6.00	
			2	30.00	0.10		6.00	
			2	30.00	0.10		6.00	
			2	11.20	0.10		2.24	
					Total Quantity		26.74	C & FC

C&FC 27/11

M N Ramaiah
Contractor

27/11/2020
Assistant Engineer
Ward No-02

Assistant Executive Engineer
Yelahanka Sub Division